tion, we observe that several of our hospital surgeons, and those, too, among our best, are very particular as to the kind of grease which they employ for smearing catheters, etc. A moment's consideration will, indeed, convince any one that the question of preference is one of some importance. To say nothing of pain, etc., to the patient, the difference between a well-lubricated urethra and one which is not so may not unfrequently decide the success or failure of the attempt at catheterism. The objects to be gained by lubrication are several: 1st. Mechanical friction is diminished; 2dly, the mucous membrane is shielded and rendered much less sensitive; 3dly, the mouths of follicles, crypts, etc., are filled; 4thly, the prevention of irritation to the mucous membrane prevents also spasm, a circumstance which, as the muscularity of the urethra is now generally admitted, is of the greatest consequence; 5thly, the mucous membrane is rendered (mechanically) supple, and the chance of its laceration or abrasion is very much diminished. Now, in order that these intentions be well fulfilled, it is necessary that the grease used be of a kind likely to be carried with the instrument down the whole tract of the urethra. It must, therefore, possess a certain amount of cohesion, and not be easily rubbed off. The ointment used for this purpose at St. Bartholomew's and several other hospitals consists of equal parts of olive oil and fresh lard; at others, castor oil is employed. We are inclined, on the whole, to give preference to the latter. When cold, it is very viscid, and adheres well to the catheter; and it loses its viscidity just at the proper time, as it becomes warmed by the instrument and the urethra. It keeps much better than anything containing lard. Olive oil is much too liquid, and should never be used. If the urethra be known to be very irritable, it may be well to adopt a plan to which we observe Mr. Wormald often resorts, of employing two instruments, the first of which is withdrawn just before touching the stricture, being used merely for the purpose of lubricating the canal; and the second, again, well greased, is carried onwards.—*Med. Times and Gaz.*, July 21, 1855.

[We have for some time employed the castor oil for lubricating catheters and bougies, and can testify to its superiority over olive oil for that purpose.—EDITOR.]

OPHTHALMOLOGY.

46. *Opacity of the Cornea treated by Operation.*—Dr. M. DAVIS reports (*Med. Times and Gaz.* Aug. 18th last) the following cases of opacity of the cornea treated by operation under the care of Mr. HAYNES WALTON and Dr. TAYLOR. A man, about 50 years of age, a patient of Dr. Taylor's, had a quantity of lime thrown into his eye four years ago. The eye was immediately washed out, and it was supposed that all the foreign matter had been removed, but a dense white opacity remained, covering nearly two-thirds of the cornea, and completely concealing the pupil when in a state of medium contraction. Many ineffectual attempts had been made to remove or diminish the impediment to vision, by means of lotions and other local applications. On examining the eye minutely, it was seen that the opacity was smooth and uniformly covered by the epithelium; its upper edge, where it did not extend to the margin of the cornea, was shaded off gradually, and the surface generally appeared slightly more elevated than that of the clear part of the cornea. This elevation, taken in connection with the history of the case, led Dr. Taylor to suspect that the apparent cicatrix was formed by a portion of the lime which had not been removed at the time of the accident, and had become incorporated with the corneal tissues. He therefore, with a fine iris knife, carefully raised the epithelium in front of the pupil, and found that, by careful manipulation, the opacity could be chipped off in small flakes, and that in no part, towards the centre of the cornea, did it appear to have penetrated the anterior elastic lamina. After clearing the pupil, the operation was suspended for the time, partly on account of the severe pain which it occasioned, and partly to avoid the risk of inflammation. On a

subsequent occasion, the remainder was removed, with the exception of a few small spots towards the margin of the cornea, which appeared to be due to interstitial inflammatory deposit.

The slight haziness which remained after the operation was speedily dissipated, and the man was dismissed with almost perfect vision. Chemical examination showed the opaque matter to consist of carbonate of lime.

In another case, also under the care of Dr. Taylor, the opacity was removed, partly by operation, and partly by the process of absorption, excited by mechanical irritation.

The patient, a female, 24 years of age, had been subject, till within the last six years, to attacks of ulceration of the corneæ. She now applied on account of a central milky opacity of the right cornea, shading the pupil and destroying useful vision in the eye. It had remained undiminished in size for six years, notwithstanding a great variety of local applications. Near the centre of the opacity were two small, dark-brown spots, situated, apparently, in the substance of the cornea. These were, probably, the effects of a former long-continued use of nitrate of silver solution, while the cornea was ulcerated. The surface of the opacity was readily peeled off in small flakes, by a cautious use of the iris knife, but the brown spots were found to be so deep-seated, that Dr. Taylor did not consider it prudent to interfere with them, especially as they would not impede vision. The result of this little operation, which has since been repeated, has been the rapid diminution of the opacity, and corresponding improvement in vision; and as absorption is still going on steadily, there is every prospect that the sight of the eye will be completely restored.

It might be objected, that the following case ought not, in strictness, to be placed under the heading of this report, but it is given, not only on account of its great peculiarity, but because it is somewhat allied to the above.

T. P., aged 38, a meteorological instrument-maker, discovered, about four years ago, that the left eye was misty. The mistiness increased slowly, and attributing the failing of sight to the injurious effects of his trade, he disregarded professional advice, till the right eye had given evidence of the same kind of obscurity that had attacked its fellow, and now he applied to Mr. Walton. The eye first diseased, the left, is virtually blind, for nothing can be seen with it, as in the centre of the cornea there is a brown oval opacity, placed transversely, large enough to cover the pupil, and dense enough to intercept light. It is of a sepia colour, and shaded towards the extremities, not raised, and possessed of the same lustre as other parts of the surface of the cornea.

The right eye is effected in a similar manner, but in a less degree, and enough of the pupil is yet uncovered, that with a magnifying glass the coarser works of his trade can be executed. There have not been any subjective symptoms, and he himself is quite unaware that there are brown spots on his eyes.

Mr. Walton directed atropine to be used to the left eye, the effect of which was to dilate the pupil beyond the opacity, and thus to enable objects to be seen with that eye nearly as well as with the other.

The right eye was then treated in the same manner, and the vision was improved. The patient now expressed himself quite satisfied with the benefit received, and desired to cease attendance, but yielded to the request of Mr. Walton to attend another day, that he might ascertain how far the opacities were capable of being removed by operation. An attempt was made to scrape a portion of one away; but a clear surface beneath could not be obtained, as the disease had extended into the true texture of the cornea, and perhaps completely pervaded it.

Dr. Taylor, who had taken his microscope to the hospital, to examine, in a fresh state, whatever might have been removed, found that the portion separated consisted of epithelium, some of which contained pigment granules.

I must beg to observe that, so far as my personal experience goes, opacities resulting from loss of substance of the cornea; in fact, cicatrices and interstitial deposits from inflammation are not capable of being pared away, but depositions, for the most part consisting of earthy materials on the surface of the cornea, and the accidental impingement of a foreign substance, as in the first case, may be so removed.

47. *Protuberance of Eyeball with Enlarged Thyroid Gland, Increased Action of Heart, &c.*—Dr. J. T. Banks records (*Dublin Hospital Gazette*, June 1, 1855) the following example of this, which is particularly interesting from the opportunity having been afforded of a *post-mortem* examination :—

The subject of this case, a woman, æt. 30, was admitted into Whitworth Hospital, January 25, 1855. Her health had been good up to the age of fifteen, and no hereditary taint was discoverable. About the age of puberty she suffered much mental disquietude, from which she has never since been altogether exempt. She does not remember the exact period when the catamenial function was established; it had always been irregular, and for the last year and half had ceased altogether, having been suddenly arrested in the midst of a period. She has always been nervous and subject to palpitations of the heart. Every winter for the last few years has had bronchitis; some time since she suffered from a fit of violent vomiting and straining, and after this she perceived that her neck was swelled, and she felt a sensation of throbbing in it. Of late she has been much distressed by palpitations and pulsation in the neck, and a feeling as if she were being choked by something drawn tightly round her throat; for the last ten nights she has been almost sleepless, and utterly unable to lie down.

On admission, she presented the following appearance: Wild agitated expression of countenance; dusky hue of skin; eyes unnaturally prominent, staring, and brilliant; evident enlargement of the thyroid gland, more particularly of the right lobe; violent throbbing of the vessels of the neck, which were considerably augmented in size; one large superficial vein crossed the trachea.

The thyroid, permanently enlarged, becomes much more turgid on the occurrence of palpitation of the heart, or paroxysms of coughing; a purring thrill, a loud continuous venous murmur, and an interrupted arterial sound are present.

The area of precordial dulness is increased; the heart's action is tremulous and irregular in the extreme; a few unequal beats of extraordinary rapidity, and then a brief pause. No murmur was distinctly audible.

The pulse is small, feeble, and unequal, and so rapid as to render it almost impossible to calculate its frequency; the countenance indicates great suffering. She says her chief distress arises from inability to lie down, or to sleep quietly, from a "feel as if her heart was in her throat." She also complains of headache and frequent cough; during the fits of coughing, her urine passes away involuntarily. With the exception of bronchitic rales, nothing abnormal was found by auscultation of the lungs. The heart's sounds were more extensively audible than is usual in health.

From the date of admission, January 25 to February 6, no marked change in condition of patient; at the latter date, œdema of the lower extremities and a slight puffiness about the eyes, were observed. Greater respiratory distress; restlessness and mental disquietude. The size of the thyroid is rather greater than when first seen; position has a remarkable effect on the pulsation; on assuming the recumbent posture, which always causes dyspnœa, the throbbing of the vessels visibly diminishes, and the murmurs become almost inaudible. The urine is of a dark smoky colour, albuminous, and depositing a sediment which, on examination, was found to consist of broken down blood globules, sp. gr. 1.017. The heart's sounds more regular.

From this time the patient rapidly declined in strength; the œdema extended almost over the whole body; the cellular tissue of the back was the seat of extensive effusion; inability to sit up from weakness, and she says from the weight of her head, and giddiness. Still the pulse remains more regular (96). The character of the urine unchanged.

For the last week of life intense bronchitic rales were heard, and there was an abundant expectoration of a bloody fluid, not viscid.

It should have been remarked that the vision was perfect up to the close of life. There never was the slightest inflammatory affection of the eyes. Death, which occurred on the 7th March, was rather sudden. She had been speaking a few minutes before, and so free from struggle were her last moments, that those near her did not know exactly the moment of her death.

The morbid appearances presented on examination were in many respects interesting.

The thyroid gland, enlarged to four or five times its natural size, was found to cover, to a considerable extent, the front of the trachea. The right lobe was larger than the left: the thyroid glands were remarkably dilated.

The gland was dense, very solid to the feel, and lobulated. A section of different parts disclosed the existence of numerous cysts, containing a yellow fluid like honey. The contents of some of the cysts were dark coloured, and resembled coagulated blood. The microscopic appearances were similar to those observed and figured by Rokitanski in ordinary enlargement of the thyroid. The jugular veins were enlarged; the bronchial glands were found of an unusually large size; the heart was enlarged generally and the cavities dilated, but not to any considerable extent.

The heart was as large as that of an ordinary man, the subject being a woman under the middle size; the valves were free from disease, with the exception of slight thickening of the anterior edge of the mitral valve.

The lungs were highly congested, and the bronchial membrane bore the marks of intense inflammation.

The liver appeared as if in the earliest stage of cirrhosis; the spleen large and congested.

The brain softer than natural; the lining membrane of the ventricles much thicker than usual.

The kidneys had undergone the changes usually observed in the early stage of Bright's disease.

The case reported presents to our notice an example of a disease which is not very frequently met with, even by physicians enjoying extensive opportunities for observation.

Comparatively rare as it is to encounter the disease, it is still more rare to have an opportunity of investigating its morbid anatomy.

Few are the dissections recorded to which we can refer in the hope of arriving at a satisfactory conclusion as to the pathology of this most obscure affection.

That the disease, with all its characteristic phenomena, may exist without organic lesion of the heart or other morbid condition, tending of necessity to shorten life, is confirmed by the observations which have from time to time been published.

In the woman who was the subject of the present notice, violent palpitations of the heart had existed for many years, with irregularities of the uterine functions, and she had, moreover, suffered from the effects of violent mental emotion. This is the history of some of the recorded cases of the disease. Functional derangement of the heart then seems to be the *point de depart* in the greater number of instances of this disease. Nervous and hysterical females, however, are not the only persons who are found to labour under this disease. Men, though by no means so frequently, and females of advanced age, have also been found amongst the victims of the malady. We cannot, therefore, assign to abnormal states of the uterine function, an important part in the production of the disease. It has been noted in some cases that the catamenia were *perfectly regular.*

It may be observed, regarding one of the most remarkable phenomena of the disease, namely, the prominence of the eyes, that it has been observed to occur suddenly. In the present case, the woman was unable to inform us as to the time when her eyes were first noticed to have acquired this remarkable character; probably at the period when the thyroid gland became enlarged. To the learned President of the Pathological Society, Mr. Adams, we are indebted for the observation of the fact of the eyes having become prominent *suddenly* after a violent fit of coughing. The scanty materials from which to establish the pathology of this disease have been already alluded to. It is of value then to place on record every necroscopic examination, even though little, if anything, be contributed in the way of foundation, upon which to erect a theory as to the efficient cause of this most obscure disease.